

REMARKS / ARGUMENTS

Claims 1-22 and 24-46 are pending in the instant application. Claim 23 has been previously cancelled. Claims 1, 9, 17, 27 and 37 are independent claims. Claims 2-8, 10-16, 18-22, 24-26, 28-36, and 38-46 depend from claims 1, 9, 17, 27 and 37, respectively. Claims 1-2, 5-6, 8-22, 24-25, 27, 29-37, 39-42 and 45-46 are amended to clarify the claim language. The Applicant points out that the amendments in the claims may find support in, for example, Figs. 3-8 and 9a-9b, and in the related description. The Applicant respectfully submits that the claims define patentable subject matter in view of the following remarks.

Claims 22, 27 and 37 are rejected under 35 U.S.C. 112, second paragraph, as allegedly being indefinite for failing to particularly point out and distinctly claim the subject matter.

Claims 1-4, 9-12, 17-20, 26-31 and 37-41 are rejected under 35 U.S.C. 102(e) as being anticipated by USPP 20040039817 ("Lee").

Claims 5-8, 13-16, 21-22, 24-25, 32-36 and 42-46 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lee in view of USP 6,701,150 ("Huang").

I. Rejection to Claims 22, 27 and 37 under 35 U.S.C. 112, second paragraph

Claims 22, 27 and 37 are rejected under 35 U.S.C. 112, second paragraph, as allegedly being indefinite for failing to particularly point out and distinctly claim the subject matter. The Final Office Action states the following:

“Claim 22 recites "said at least one receiver is operable to receive said at least one polling message by said switch". It is unclear whether said receiver is receiving said polling message or said polling message is received by said switch.”

See the Final Office Action at page 2. The Applicant respectfully disagrees that claim language is unclear, since claim 22 clearly recites “said one or more receiver”, which refers to the “one or more of a plurality of access points” in claim 17. Nevertheless, in order to advance prosecution, the Applicant has deleted “by said switch” from the claim language, which claim 22 now reads “...wherein **said** one or more **receiver** is operable to receive said one or more polling message”. The Applicant respectfully requests that the rejection of claim 22 under 35 U.S.C. 112, second paragraph be withdrawn.

Regarding the rejection of claims 27 and 37, the Final Office Action states the following:

“Claims 27 & 37 recites Claims "its corresponding load" in claims 27 & 37. It is unclear what "its" refers to.”

See the Final Office Action at page 2. The Applicant points out that “its corresponding load” in claims 27 and 37 refers to each of the access points.

Nevertheless, in order to advance prosecution, the Applicant has amended claims 27 and 37 to read "...one or more of a plurality of **access points** that receives said transmitted one or more polling message to **communicate a corresponding load to a switch₁**". The Applicant respectfully requests that the rejection of claims 27 and 37 under 35 U.S.C. 112, second paragraph be withdrawn.

II. Rejection Under 35 U.S.C. § 102

MPEP 2131 states:

"[a] claim is anticipated only if **each and every element** as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." See MPEP at 2131 (internal citation omitted). Furthermore, "[t]he identical invention must be shown in as complete detail as is contained in the ... claim." See *id.* (internal citation omitted).

A. Lee Does Not Anticipate Claims 1-4, 9-12, 17-20, 26-31 and 37-41

The Applicant turns to the rejection of claims 1-4, 9-12, 17-20, 26-31 and 37-41 under 35 U.S.C. § 102(e) as being anticipated by Lee. Without conceding that Lee qualifies as prior art under 35 U.S.C. 102(e), the Applicant respectfully traverses this rejection as follows.

A(1) Independent Claims 1, 9, 17, 27 and 37

With regard to the rejection of independent claim 1 under 35 U.S.C. § 102(e), the Applicant submits that Lee does not disclose or suggest at least the limitation of “responsive to said one or more polling message, **communicating a load on** said one or more of **said plurality of access points to a switch**, wherein **said switch determines optimal load balancing** for said one or more of said plurality of access points **based on said communicated load**,” as recited in Applicant’s claim 1.

In the Office Action, the Examiner asserts that Lee discloses the following:

“Regarding Claim 1, Lee discloses a method for providing load balancing in a hybrid wired/wireless local area network [hybrid wired/wireless local area network: 0004] [a method... responsive to said at least one polling message , determining a load on each one of said plurality of access points and sending said determined load of said each one of said plurality of access points to said access device [each of transmitting AP determines QBSS load value and sends probe response message contains information about each AP's determined QBSS Load value...: 0037-0038].”

See pages 3-4 at the Final Office Action. The Examiner relies for support on Lee in ¶¶0037-0038 and equates Lee’s QBSS Load value to be the same as Applicant’s “load on said one or more of said plurality of access points”. However, Lee does not disclose a switch. In this regard, the Applicant submits that Lee at least does not disclose or suggest “**communicating a load on** said one or more of **said plurality of access points to a switch**,” as recited in Applicant’s claim 1.

In addition, as pointed out by the Examiner, Lee clearly discloses “each of transmitting **AP determines QBSS load value ...**” In other words, Lee does not disclose “said **switch determines** ...,” let alone discloses “said **switch determines**... **optimal load balancing... based on said communicated load**”, as recited in Applicant’s claim 1.

Accordingly, since Lee neither discloses “a switch” nor “said switch determines optimal load balancing...”, Lee subsequently also does not disclose or suggest “**communicating information of said determined optimal load balancing** for said one or more of said plurality of access points **to said access device**,” and “said **access device re-establishes communication with** one or more of said plurality of **access points based** on said communicated information of said **determined optimal load balancing**,” as recited in Applicant’s claim 1.

Therefore, based on the foregoing rationale, the Applicant maintains that Lee does not anticipate the Applicant’s claim 1, and respectfully requests that the rejection of independent claim 1 under 35 U.S.C. § 102(e) be withdrawn.

Likewise, independent claims 9, 17, 27 and 37 are similar in many respects to claim 1, and are therefore submitted to be allowable for the same rationale presented in claim 1. Furthermore, the Applicant reserves the right to argue additional reasons beyond those set forth herein to support the allowability of independent claim 1, 9, 17, 27 and 37 should such a need arise.

A(2) Dependent Claims 2-4, 10-12, 18-20, 26, 28-31 and 38-41

Based on at least the foregoing, the Applicant believes the rejection of independent claims 1, 9, 17, 27 and 37 under 35 U.S.C. § 102(e) as being anticipated by Lee has been overcome and requests that the rejection be withdrawn. Additionally, claims 2-4, 10-12, 18-20, 26, 28-31 and 38-41 depend directly or indirectly from independent claims 11, 9, 17, 27 and 37, and are, consequently, also respectfully submitted to be allowable. Furthermore, the Applicant reserves the right to argue additional reasons beyond those set forth herein to support the allowability of claims 2-4, 10-12, 18-20, 26, 28-31 and 38-41 should such a need arise.

III. REJECTION UNDER 35 U.S.C. § 103

In order for a *prima facie* case of obviousness to be established, the Manual of Patent Examining Procedure, Rev. 6, Sep. 2007 ("MPEP") states the following:

The key to supporting any rejection under 35 U.S.C. 103 is the clear articulation of the reason(s) why the claimed invention would have been obvious. The Supreme Court in *KSR International Co. v. Teleflex Inc.*, 82 USPQ2d 1385, 1396 (2007) noted that the analysis supporting a rejection under 35 U.S.C. 103 should be made explicit. The Federal Circuit has stated that "rejections on obviousness cannot be sustained with mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness."

See the MPEP at § 2142, citing *In re Kahn*, 441 F.3d 977, 988, 78 USPQ2d 1329, 1336 (Fed. Cir. 2006), and *KSR International Co. v. Teleflex Inc.*, 82 USPQ2d at 1396 (quoting Federal Circuit statement with approval). Further, MPEP § 2143.01 states that “the mere fact that references can be combined or modified does not render the resultant combination obvious unless the results would have been predictable to one of ordinary skill in the art” (citing *KSR International Co. v. Teleflex Inc.*, 82 USPQ2d 1385, 1396 (2007)). Additionally, if a *prima facie* case of obviousness is not established, the Applicant is under no obligation to submit evidence of nonobviousness:

The examiner bears the initial burden of factually supporting any *prima facie* conclusion of obviousness. If the examiner does not produce a *prima facie* case, the applicant is under no obligation to submit evidence of nonobviousness.

See MPEP at § 2142.

A. The Proposed Combination of Lee and Huang Does Not Render Claims 5-8, 13-16, 21, 22, 24-26, 32-36 and 42-46 Unpatentable

The Applicant turns to the rejection of claims 5-8, 13-16, 21, 22, 24-26, 32-36 and 42-46 as being unpatentable over Lee in view of Huang. Based on at least the foregoing, the Applicant believes the rejection of independent claims 1, 9, 17, 27 and 37 under 35 U.S.C. § 102(e) as being anticipated by Lee has been overcome and requests that the rejection be withdrawn. Additionally, claims -8, 13-16, 21, 22, 24-26, 32-36 and 42-46 depend directly or indirectly from

independent claims 1, 9, 17, 27 and 37, and are, consequently, also respectfully submitted to be allowable.

In addition, regarding claim 5-8, 13-16, 21, 22, 24-26, 32-36 and 42-46, the Examiner states:

“Regarding Claims 5-8, 13-16, 21, 22, 24-25, 32-36, 42-46, Lee discloses the method according to claims 1, 2, 9, 17, 27, 32, 37 & 41 as stated above but does not explicitly disclose messaging protocol via centralized load balancing control switch according to 5-8, 13-16, 21, 22, 24-26, 32-36, 42-46. Huang discloses centrally controlled load balancing method and system in which base station transmits corresponding received channel quality information of base stations to network side entity such as mobile control point (claimed switch) in order to centrally controlled roaming between base stations (i.e., switching) [Step 200: Column 3, Lines 2-10] [network entity or mobile control point: summary] wherein messaging sequences are according to claims i.e., mobile transmits messages to mobile control point i.e., switch or receive messages from mobile control point via serving access points. Huang also discloses that mobile control point centrally balance network load based on received channel quality information and received aggregate base station load information from base stations [Figure 2 & Column 3].”

See the Final Office Action at pages 9-10. The Examiner concedes that **Lee does not** disclose both **a switch** and sending and receiving the polling message from the AP to the network switch **using messaging protocol message**. The Examiner looks to Huang to teach the deficiencies of Lee.

The Examiner equates Huang’s cellular network to Applicant’s “hybrid wired/wireless **local area network**”, Huang’s Base Transceiver Station (BTS) to Applicant’s Access Point “AP”, and Huang’s remote station (cell phone) to

Applicant's "Access device" and Huang's Mobile Control Point (MCP) to Applicant's "switch".

The Applicant respectfully disagrees, and points out that Huang's "cellular" CDMA network (see Huang at col. 3, lines 11-13), is not equivalent to Applicant's "hybrid wired/wireless local area network" ("hybrid LAN"). For example, Huang's CDMA cellular network and Applicant's hybrid LAN, are in fact, two completely different network systems using distinct and mutually exclusive communication modulation schemes, different protocols, different frequencies and hardware etc.

Furthermore, Huang discloses using **inband signaling** to communicate the control information between the BTS (the alleged "AP") and the MCP (the alleged "switch"), which is not a "messaging protocol message". More specifically, the Examiner is referred to the following citation of Huang:

"A mobile control point (MCP) 100 or other network-side control device directs each voice and/or data connection to a respective BTS via a cable connection. The BTS, in turn, provides a wireless link for the voice and/or data connection to the remote station . The **MCP may also send control information to the remote station and receive control information from the remote station via the BTS using, for example, inband signaling**".

See Huang at col. 2, lines 57-64. Huang discloses that the control information is sent via "inband signaling", which is an **audio tone signal**, and **not** a messaging **protocol message**. To further support Applicant's argument, the Examiner is referred to Newton's Telecom dictionary 20th Edition, at page 417, which defines in-band signaling as the following:

“In-band signaling: Signaling **made up of tones which pass within the voice frequency band** and are carried along the same circuit as the talk path that is being established by the signals...

Therefore, based on the fact that “inband signaling” is an audio tone signal communication, the Examiner’s allegation that Huang discloses Applicant’s “messaging protocol message” is unsupported.

Moreover, even assuming for the sake of argument, that Huang’s cellular network is equivalent to Applicant’s “hybrid LAN” (which it is not), and Huang’s audio tone “inband signaling” is Applicant’s “messaging protocol message” (which it is not), Huang still does not disclose that the MCP (the alleged “switch”) performs Applicant’s “optimal load **balancing**” and “**aggregate** load” determination. The Examiner is referred to the following citation of Huang:

“FIG. 2 illustrates an example of a method, according to the invention, by which **the MCP selects which BTS is to communicate with a remote station**. As step 200 shows, each remote station periodically measures the channel quality of one or more of the BTSs in its active set. **The remote station periodically transmits the channel quality information to the BTS that is presently receiving its signal which, in turn, delivers the information to the MCP.**”

“**The MCP then selects the BTS having the greatest K value**, as step 206 shows, and signals the remote station, such as **by using inband signaling, to terminate communication with its current BTS**, if any, and initiate communication with the selected BTS at a specific time slot. The MCP also informs the current BTS and the selected BTS of the switch, typically using inter-BTS signaling.”

See Huang at col. 3, lines 3-10, lines 48-54. Huang in the above citations discloses that the MCP calculates the greatest K value (ratio of channel quality to

loading condition L) based on the received BTS channel quality information. Huang neither disclose that the K value is an “optimal **load balancing**”, nor is an “aggregate load” determination. In this regard, Huang’s K value at best reflects the individual BTS loading state in relation to the signal quality received by the remote station. Therefore, Huang still does not overcome Lee’s above deficiencies, as alleged by the Examiner.

Moreover, the Examiner is referred to the following citation of Huang:

“Also, **the switching from one BTS to another is driven by the MCP** so that the control of the loading of the BTSs is centralized in a network -side entity, **rather than being distributed among the remote stations**”

See Huang at col. 3, lines 62-64. Huang in the above citations also discloses that **it is the MCP** (the alleged “switch”), **which performs the switching** from one BTS to another (i.e., the alleged “soft handover” of the cell phone or the alleged “re-establishing communication with the plurality of access points”). Therefore, the selection of BTS is not performed by the remote stations (the alleged “access device”). In this regard, the Applicant submits that Huang’s CDMA “soft handover switching” (the alleged “re-establishing communication” with the alleged “AP”), if implemented to Lee’s 802.11 LAN network, would render Lee’s LAN inoperative. In other words, the Examiner’s argument that Lee discloses Applicant’s “**said access device re-establishes** communication **with** one or more of said **plurality of access points**” would fall apart since Huang’s CDMA switching method, in fact, “teaches away” (see MPEP at § 2145 X-D2) from

Applicant's claim 1. In this regard, the Applicant submits that Huang cannot be combined with Lee.

Therefore, based on the above rationale, the Applicant maintains that the combination of Lee and Huang does not establish a prima facie case of obviousness to reject claims 5-8, 13-16, 21, 22, 24-26, 32-36 and 42-46 under 35 U.S.C. § 103(a), and are therefore submitted to be allowable.

CONCLUSION

Based on at least the foregoing, the Applicant believes that all claims 1-22 and 24-46 are in condition for allowance. If the Examiner disagrees, the Applicant respectfully requests a telephone interview, and requests that the Examiner telephone the undersigned Patent Agent at (312) 775-8093.

The Commissioner is hereby authorized to charge any additional fees or credit any overpayment to the deposit account of McAndrews, Held & Malloy, Ltd., Account No. 13-0017.

A Notice of Allowability is courteously solicited.

Respectfully submitted,

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